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(54) Title: GRANULAR DETERGENT COMPOSITIONS HAVING IMPROVED SOLUBILITY PROFILES**(57) Abstract**

Granular detergent composition having an average bulk density of at least about 400 g/L and characterized by a rate of dispersion under stressed cold-water conditions as defined by the equation (1), where R is the residual undispersed detergent at any point in time, t, R is the long term residual undispersed detergent having a value of less than about 14 % of the total amount of an initial dosage of detergent, t is any single point in time, m is a stretching exponent having a value of less than about 2, DT is dispersion time having a value of less than about 0.5 and t_{wash} is the time of the wash cycle; and at least 90 % of the insoluble particulate residues of said granular detergent composition having a particle size of less than 15 µm are provided. In preferred embodiments, the detergent composition has a rate of dissolution under stressed cold-water conditions as defined by the equation (2), where U is the fraction of undissolved surfactant at any point in time, t, U is the long term surfactant residual undissolved surfactant having a value of less than about 14 % of the total amount of an initial dosage of surfactant, t is any single point in time, n is a stretching exponent having a value of less than about 2, RT is dissolution time having a value of less than about 0.5 and t_{wash} is the time of the wash cycle.

$$R = R^* + (1 - R^*) \exp \left(- \left(\frac{t}{DT(t_{wash})} \right)^m \right) \quad (1)$$

$$U = U^* + (1 - U^*) \exp \left(- \left(\frac{t}{RT(t_{wash})} \right)^n \right) \quad (2)$$